ePortfolio for Teaching and Learning Management:  
FuturEd Master Class for MNU 2017

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FuturEd White Paper:  
ePortfolio for Assessment of Learning
A little about me

- Canadian expatriate (Middle East, China and Malaysia)
- PhD in Education Administration
- Expert in Higher Education, QA, eLearning, Faculty Development, Teaching & Learning, Leadership Development, Intercultural Leadership
- FuturEd is me: consulting education futurist
- Advocating ePortfolio for 15 years
  - FuturEd vision: ePortfolio learning ecosystem
- Now envisioning a Blockchain-managed ePortfolio system
- Dedicated Traveler and Lifelong Learner
A little about you?

- How do people here know you?
- Do you have an ePortfolio?
- Do you use ePortfolios in your classroom?
- What is your measure of success for today?
Master Class Overview

- **Content**
  - ePortfolio concepts and types
  - ePortfolio processes
  - ePortfolio tools and products

- **Processes**
  - Designing ePortfolio assignments (3)
  - Assessment of ePortfolios (rubrics)
  - Modeling engaged learning

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**Engaged learning**

- Requires active participation by learners
- Based on clearly-stated intended learning outcomes
- Emphasizes vocabulary
- Produces evidence of learning
- Reports competence levels of relevant competencies
- Begins with prior learning assessment

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PRE-TEST
Key concepts (ILOs)

1. Teaching/learning
   - ICT skills development
   - Intended Learning Objectives
   - Curriculum Alignment
   - Assessment
     - Formative & summative
     - Authentic & digital
     - Evidence-based
     - Competence-based
   - Engaged learning

2. ePortfolio
   - Types and uses
   - ePortfolio tools and services
   - Digital evidence of learning and badges
   - Creation processes
     - Archives
     - *Reflection*
     - Presentation
   - Digital rubrics

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ePortfolio at its simplest:

- “This is what I know and can do,
- Here’s how I learned it, and here’s the (digital) evidence”

1. Archive everything
2. Presentation as needed

Most complex: My Digital ID
Sample ePortfolios

Tools to make eP

- Personal URL
- Free website
- Free presentation
- Open Source
- LMS embedded
- Commercial / HCM
- Professional
- Personal
- No hassle

Sample

- www.FuturEd.com
- About Me
- Google Sites
- Marhara (for Moodle)
- CourseNetworking
- Portfolium
- LinkedIn or FB page
- Social networking
- ppt
Sample types of ePortfolios in education systems

- Individual **student ePortfolios (by class, program, institution)**
- Lifetime learning ePortfolios (including formal, non-formal and informal learning, accidental and incidental)
- Collective student ePortfolios for Quality Assurance and accreditation
- Staff ePortfolios for professional development, Human Capital management
Assessment ePortfolios

1. Developmental (over time, self-assessment)
2. Proficiency (high-stakes, exit)
3. Showcase (best works)
4. Admission / employment (relationship to requirements)
5. Communications (personal, sharing)
Workshop outcomes

Outcomes: new KSA
Output: 5-slide ePortfolio of

1. Prior knowledge / what I learned (sample digital evidence)
2. Creating a developmental eP assignment
3. Creating an eP proficiency assignment
4. Assessing an ePortfolio presentation
5. Next steps for me and/or MNU (“I want to know more..”)

Let’s get started: Open PPT – 5 slides and skip down to #5
ePortfolio Defined*

- “a collection of authentic and diverse evidence, drawn from a larger archive representing what a person or organization has learned over time on which the person or organization has reflected,
- and designed for presentation to one or more audiences for a particular rhetorical purpose”

6 key concepts

*(NLII 2003 and FuturEd 2005)*
Reflection practice (in teams)

You are preparing for a job interview. You will be asked:

1. What was your last job? What were your key tasks?

2. What did you excel at? Do you have evidence? **THIS** takes reflection.

3. Can you produce digital evidence? **Critical importance of your archive!** Same for students!
ePortfolio development

**eP Process**

1. Collection ARCHIVE
2. REFLECTION*
3. Selection
4. Projection: the learning
5. Presentation

- Taking time to think critically

**e.g. Reflection tools**

(GOOGLE it 😊)

1. Critical questions
   - What did you learn?
   - How do you know you learned it?
2. Blogging / journaling
3. Teach another
4. Self-assessment
5. Gap analysis (pre-post)
6. SWOT analysis

eP is NOT a digital CV

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Metacognition helps us apply knowledge, skills and character qualities to new contexts.

The Role of Metacognition in Learning and Achievement

www.kqed.org

Synthesis of Research on Teachers’ Reflective Thinking

The value of teachers’ own interpretations of their work now supersedes technical views of teaching, and researchers are exploring three elements of reflection—cognition, critical thinking, and narrative inquiry undertaken by teachers themselves.

R

etive thinking is not a new
phenomenon (2017). However,
the recent advances in the
study of metacognition and
its implications for education
have given rise to a renewed in-
terest in this area. Metacogni-
tion refers to the ability to
monitor and control one’s own
thought processes and to use
these processes to improve
learning and problem solving.

The Cognitive Emergence of Reflection

Reflective thinking is crucial to the development of critical thinking skills. It enables learners to assess their own knowledge and understanding, and to identify areas for improvement. This process is essential for effective learning, as it helps individuals to develop a deeper understanding of the subject matter and to apply that knowledge in new situations.

The Epistemological and Pragmatic Dimensions of Reflection

Metacognition is closely linked to other cognitive processes, such as memory, attention, and working memory. It plays a critical role in these processes by helping individuals to organize and store information, and to retrieve it when needed. In addition, metacognition is essential for planning and goal setting, as it allows individuals to set objectives and to monitor their progress towards achieving them.

The Reflective Process

Reflection is a key component of the learning process, as it enables learners to identify and address their own strengths and weaknesses. It also helps individuals to develop a more critical perspective on their own thinking, and to reflect on the strategies they use to solve problems. This process is essential for developing effective problem-solving skills, as it enables learners to think creatively and to consider alternative approaches to a given problem.

The Teacher as Reflective Practitioner

The role of the teacher as a reflective practitioner is crucial to the development of effective teaching and learning. Teachers who engage in reflective practice are able to identify and address their own strengths and weaknesses, and to develop strategies for improving their teaching. In addition, reflective practice enables teachers to develop a deeper understanding of the subject matter, and to apply that knowledge in new situations.
Creating a Developmental eP assignment
Slide #2: Competence development

Potential competencies

- 21st century skills
- Graduate Attributes
- Employability or transferability skills

You will assign the 5 steps
Developmental ePortfolio

Steps (ppt slide #2)

1. Pick on attribute or skill, e.g., collaboration
2. Carefully define it as a competence (reference – Google or Wikipedia)
3. From a university / LLL perspective, where could it be learned? What would evidence of achievement look like? Digital evidence? Where is the reflection part?
4. From your course perspective, how could this be assessed? Evaluated?

Principles

- Incorporating all forms of learning: formal and informal
- Demonstrates actual learning
- Evidence for “employers”
- Quality assurance and accountability

Over time….
Digital evidence: how and why

**Creations, e.g.,**

- Video clips
- Audio clips
- Photographs
- GIFs
- Scanned documents
- Hyperlinks
- Blogs / journals
- Badges
- QR Codes

**Advantages**

1. Accessible
2. Portable
3. Examinable
4. Replayable
5. Reviewable
6. Sharable
7. Personalized
8. Creative
Digital Evidence: the basics

Storage & presentation

1. Archive on your computer and/or the cloud

2. Presentation
   - Website
   - Open Source
   - Google sites
   - System tools (Moodle)
   - Commercial tools
   - Ppt tools

Policy Issues

- Creation tools to use
- Storage requirement
- Sharing methods
- Internet Ethics
- Legality / ownership
- Utilization

Put it in writing and KISS

YouTube Videos

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Assessment of student learning should be: (QA standards for assessment)

1. authentic, i.e., accurate representation of the contexts encountered in the field of study or in real-life tests faced by learners
2. against stated learning outcomes
3. frequent and timely
4. appropriate and responsive to the needs of the learners
5. in various forms such as written and oral assignments, self-assessment, demonstrations, portfolio assessment, and exams
6. competence-based
7. valid and reliable
8. conducted by trained assessors
Creating a summative eP assignment
(new ppt slide #3)

Standards-based (ILO), proficiency eP

1. _______ is an important task or concept in your discipline

2. An associated **learning objective** is _______? **

3. Competence can be demonstrate by (verb!) _____

4. Acceptable digital evidence would be ________

5. The reflection element is _______________

6. Learning would be assessed against _______

7. The eP would be evaluated against _______

8. The assignment would be managed by ________
** A good intended learning objective (ILO) is...

- Clearly stated
- Relevant (useful & appropriate to learner)
- Observable / demonstrable
- Measurable
- Achievable and realistic
- Appropriate in rigor to degree awarded
- Consistent with the provider’s mandate

- Competence-based and competency-based
Evaluating an ePortfolio of learning achievement

1. Stated learning objective (ILO)
2. Digital evidence submitted
3. Levels of competence – inadequate to excellence
4. Self-assessment (optional but recommended)
5. Teacher scoring (comments recommended)
6. Evaluation: level of achievement?
## Rubric for assessment of learning

### Demonstrable? Measurable?
**Rubric must be digital**

<table>
<thead>
<tr>
<th>Learning Objective</th>
<th>Evidence Submitted</th>
<th>Unacceptable achievement</th>
<th>Acceptable achievement</th>
<th>Excellence</th>
<th>Self / Teacher Assessed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Create a blog</td>
<td>No entries</td>
<td>Entries</td>
<td>Engaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Express what s/he learned</td>
<td>Repeats course objectives</td>
<td>Translates objectives into own word</td>
<td>Actively reflects on before and after</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Share what s/he has learned</td>
<td>No ability to transfer</td>
<td>Use of appropriate tools</td>
<td>Links new learning to old and to plans</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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### Rubric for assessing an ePortfolio - it IS the evidence

<table>
<thead>
<tr>
<th>Skills to develop</th>
<th>Levels of required Achievement</th>
<th>Assessment and/or evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to make an ePortfolio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Planning and gap analysis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creating digital evidence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reflection</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-assessment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creativity and ICT innovation</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Assignment: Showcase eP of best work

1. What are the overall course objectives?
2. How is excellence described overall?
3. What constitutes evidence of achievement?
4. What is acceptable digital evidence?
5. What marking rubric would you give to students?

Principles
- Promotes accountability for course objectives
- Reflects curriculum alignment
- Incorporates all steps of eP creation
- Ensures transparent assessment and evaluation
- Promotes reflection: time to consider over the term
Showcase marking rubric

MUCH simplified...

<table>
<thead>
<tr>
<th>Learning objectives</th>
<th>Evidence submitted</th>
<th>Levels of required achievement</th>
<th>Self-assessment</th>
<th>Teacher evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Course content</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ePortfolio itself</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

How to manage this?
- Distribute?
- Receive?
- Provide feedback?
Critical Principles

An ePortfolio MUST:

- Be owned by individual / creator
- Be secure, with access controlled
- Incorporate all forms of learning
- Be transportable
- Demonstrate ROI
Student uses of ePortfolios

- Lifelong learning
  - Formal learning
  - Informal (on campus, IE)
  - Non-formal (community, family)
  - Achievements
  - Networks

- Employability
  - Breadth of abilities
  - Supporting evidence
  - Transferable skills
  - References
ePortfolio Assessment of Learning

- Alternative assessment (essays, multiple choice)
- Authentic assessment (evidence of real tasks)
- Competency-based (here’s the evidence)
- Flexible assessment (PLA)
- Reflective learning (process, personalized)
- Constructivist (over time – a living document)
- Positivist (asset building)
- Complementary (to other types of assessment)
- Motivating (through self- or peer-assessment)
- Instructive (wealth of info about learners)
Review: ePortfolio is

- A **digital approach** in teaching and learning management to achieve, e.g.,:
  - An ongoing digital archive of evidence
  - Presentation of relevant, as-needed KSA
  - A record of learning progress
  - Effective and efficient assessment
  - ICT skills and innovations development
  - Achievement of ILOs

- **Digital** tools, services, evidence – ODL 😊
- Widely used Learning Management tool
FuturEd ePortfolio learning ecosystem

1. All “teaching” efforts set out as Intended Learning Outcomes (ILO) that are demonstrable/measurable
2. Full curriculum alignment, and direct testing for the ILOs through authentic and flexible assessment
3. Complete rubric description of levels of achievement from inadequate to excellence.
4. For at least one ILO, the requirement for a digital artefact of competence – assessed against the rubric.
   - The artefact may take the form of a digital badge
5. Digital artefacts are added to the a person’s digital repository.
6. When necessary or preferred, the digital artefacts are managed and presented by blockchain technology.

HENCE **Blockchain portfolios** of cryptocompetencies

**A vision of a Preferred Future**
Me, ePortfolio and learning assessment at MNU... on slide #5

- Post-test
- Making slide #1

Slide #5
- I want to try...
- I want to learn...
- MNU could...
  - Opportunities?
  - Obstacles?

It's now
- Life-long (live longer, keep learning)
- Life-wide (life skills, growth mindset)
- Life deep (EQ, ethics, empathy, values)

Business Insider
16 Aug at 09:15 🌐

"The notion that you're born, go to school, get a job, retire, die. That's gone."
Presentations / volunteers?

5-slide ePortfolio

1. This is what I learned...
2. Here is my developmental eP assignment
3. This is an proficiency ePortfolio assignment
4. This rubric is to assess an eP assignment
5. Next steps for me and/or MNU
More Information:

www.FuturEd.com
ePortfolio research and white papers

Dr. Kathryn Chang Barker
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### Websites / FB pages

#### Education
- Edutopia
- Yidan Prize
- eLearning Coach
- Mindshift
- The Atlantic
- Education Technology
- WISE Qatar Foundation

#### Leadership
- World Economic Forum
- Entrepreneur
- Business Insider
- Big Think
- Futurism
- LinkedIn
Some eP web resources

- Consumer Guide to ePortfolio Tools and Services (FuturEd)
- Glossary of terms [https://kb.iu.edu/d/aqhz](https://kb.iu.edu/d/aqhz)
  [http://eportfolio.nku.edu/downloadpage.htm](http://eportfolio.nku.edu/downloadpage.htm)
- all about: [http://www.jiscinfonet.ac.uk/infokits/e-portfolios/index_html](http://www.jiscinfonet.ac.uk/infokits/e-portfolios/index_html)
- eP for teachers: [http://ucat.osu.edu/teaching_portfolio/teaching_port.html](http://ucat.osu.edu/teaching_portfolio/teaching_port.html)
ePortfolio Resources

**Tools / services**
- CourseNetworking ePortfolio
- Mahara / Moodle ePortfolio
- Google Sites eP
- Portfolium
- PebblePad
- LifeWire
- About Me
- IO Grid
- SimpleSite

**Resources**
- FuturEd Consumer Guide to ePortfolio Tools and Services
- list of tools
- PhD2Published
- CN Badges
- Guide to Badges
- Synthesis of Research on Teacher's Reflections
Potential applications

- **K-12** – demonstration of learning
- **PSE / HE** – assessment of learning
- **Lifelong learning** – continuous “reflective” learning, inventory of learning
- **Workplace** –
  - recognition of all forms of learning (PLA)
  - Human Capital Assets Management (HCA)
- **eLearning** – LMS and KM, online tools, web services
- **Organizational and/or economic development** – asset mapping, quality assurance
- **eCitizenship** – Digital identity
ePortfolio...

- A term used to encompass (1) tools, products and systems that can be used by (2) individuals, educators, employers and entire nations for the purposes of (3) describing, assessing, recognizing and using knowledge and skills (4) acquired through all forms of learning (5) with evidence that is digitally created, stored and managed through (6) practices that meet quality standards to assure transportability, usability, and security (FuturEd 2007)
What Footprints Are You Leaving Behind?

kintsukuroi

(n.) (v. phr.) "to repair with gold"; the art of repairing pottery with gold or silver lacquer and understanding that the piece is more beautiful for having been broken.

"you're supposed to start before you're ready and before you're good at it and that's how you get ready and that's how you get good at it"

-Elizabeth Gilbert, Magic Lessons season 2

Think of it as an adventure